**STATEMENT OF BASIS (AI No. 13853)**

for draft Louisiana Pollutant Discharge Elimination System permit No. LA0007153 to discharge to waters of the State of Louisiana.

**THE APPLICANT IS:** Adell Compounding, Inc.
30128 Eden Church Rd.
Denham Springs, LA 70726

**ISSUING OFFICE:** Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

**PREPARED BY:** Kelli Hamilton

**DATE PREPARED:** November 18, 2009

**1. PERMIT STATUS**

A. Reason For Permit Action:

Permit reissuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term.

B. LPDES permit - LPDES permit effective date: November 1, 2004
LPDES permit expiration date: October 31, 2009
EPA has not retained enforcement authority.

C. Date Application Received: June 5, 2009

**2. FACILITY INFORMATION**

A. FACILITY TYPE/ACTIVITY - plastics compounding plant

Adell Compounding, Inc. is an existing plastics compounding plant that plasticizes (repelletizes) polymers and rubbers purchased from manufacturers using extruders and pelletizers. Polymers and rubbers are not manufactured on site. Plastic pellets are blended with additives (powders and/or liquids) and extruded through a die plate. Water in a slurry line transports the pellets from the pelletizer to the spin dryer. The slurry water is discharged, and the pelletizers and equipment are cleaned at the end of the campaign.

Some of the plastic pellets are melted and extruded into strands. These strands are cooled in a strand bath. The strand bath is approximately 200 gallons. The strands are then fed into a pelletizer for cutting. The bath water is discharged at the end of a campaign.

B. FEE RATE
1. Fee Rating Facility Type: minor
2. Complexity Type: II
3. Wastewater Type: II
4. SIC code: 3087

C. LOCATION - 9813 J.C. Summers Lane in Denham Springs, Livingston Parish Latitude 30°29'14", Longitude 90°55'20"

**3. OUTFALL INFORMATION**

Outfall 001

Discharge Type: treated sanitary wastewater from the sanitary treatment plant on the west side of the site
Treatment: sanitary treatment plant
Location: at the point of discharge from the sanitary treatment plant near the firewater pond on the west side of the site
Flow: 500 gpd
Discharge Route: local drainage, thence into Dixon Canal, thence into Grays Creek

Outfall 002 and Outfall 005

Discharge Type: stormwater runoff from the building roof and the concrete pad adjacent to the loading docks on the southeast side of the site and stormwater runoff from the loading dock on the southwest side of the site

These outfalls have been deleted.

In accordance with LAC 33:IX.2511.A.1, discharges composed of storm water "...shall not be required to obtain an LPDES permit except... discharges associated with industrial activity." In accordance with LAC 33:IX.2511.B.14, facilities classified as SIC code 3087 are considered to have stormwater discharges associated with industrial activity.

Outfall 002 and Outfall 005 were included in the previous permit and are listed in the application to discharge stormwater runoff from the building roof and the concrete pad adjacent to the loading docks on the southeast side of the site and from the loading dock on the southwest side of the site (respectively). Because there is low potential for contamination of stormwater runoff from the south side of the facility, Outfalls 002 and 005 have been deleted.

Although the potential for contamination is low for the areas from the south side of the facility, the areas shall be included in the Stormwater Pollution Prevention Plan.

Outfall 003

Discharge Type: stormwater runoff from the areas north and east of the building and previously monitored effluent from Outfalls 103 and 203
Treatment: none
Location: at the point of discharge from the northeast side of the site
Flow: intermittent
Discharge Route: local drainage, thence into Dixon Canal, thence into Grays Creek

Outfall 103

Discharge Type: process wastewater from the washdown of feeders, blenders, and floors, and previously monitored contact cooling water from Outfall 203
Treatment: none
Location: at the point of discharge from the PVC pipe on the north side of the building
Flow: 20000 gpd
Discharge Route: local drainage, thence into Dixon Canal, thence into Grays Creek

Outfall 203

Discharge Type: contact cooling water
Treatment: none
Location: at the point of discharge from the strand bath
Flow: 200 gallons per batch
Discharge Route: local drainage, thence into Dixon Canal, thence into Grays Creek

Outfall 004

Discharge Type: treated sanitary wastewater from the sanitary treatment plant on the south side of the site
Treatment: sanitary treatment plant
Location: at the point of discharge from the sanitary treatment plant on the south side of the site
Flow: 150 gpd
Discharge Route: local drainage, thence into Dixon Canal, thence into Grays Creek

**4. RECEIVING WATERS**

STREAM - local drainage, thence into Dixon Canal, thence into Grays Creek

BASIN AND SEGMENT - Lake Pontchartrain Basin, Segment 040304

DESIGNATED USES - a. primary contact recreation
b. secondary contact recreation
c. propagation of fish and wildlife

**5. TMDL STATUS**

Subsegment 040304, Grays Creek-From headwaters to Amite River, is listed on LDEQ's Final 2006 303(d) List as impaired for organic enrichment/ low DO, pathogen indicators, nitrate/ nitrite, sulfates, TDS, and phosphorus. To date no TMDLs have been completed for this waterbody. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a TMDL. Until completion of TMDLs for the Lake Pontchartrain Basin, those suspected causes for impairment which are not directly attributed to the plastics compounding plant point source category have been eliminated in the formulation of effluent limitations and other requirements of this permit. Additionally, suspected causes of impairment which could be attributed to pollutants which were not determined to be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water quality standard were also eliminated.

All of the outfalls have the potential to discharge pollutants associated with the organic enrichment/low DO impairment. The organic enrichment/low DO impairment shall be addressed through the BOD parameter for Outfalls 001, 103, 203 and 004 and through the TOC parameter for Outfall 003.

Outfalls 001 and 004 have the potential to discharge pollutants associated with the pathogen indicators impairment. The pathogen indicators impairment shall be addressed through the fecal coliform parameter.

Outfalls 001 and 004 have the potential to discharge nutrients. However, the volume of the discharge is too small to have a significant impact on the receiving stream. LDEQ's position regarding water quality criteria for nutrients, is that when oxygen-demanding substances are controlled and limited in order to ensure that the dissolved oxygen criterion is supported, nutrients are also controlled and limited. See In The Matter of Sierra Club and Louisiana Environmental Network Request for Nutrient Limits. Docket No. AHD-DR-96001. LDEQ April 29, 1996. LAC 33:IX.2707.D.1.f.iii allows the establishment of effluent limitations based on an indicator parameter for the pollutant of concern. LDEQ's consistent approach to controlling nutrients where the WQMP does not otherwise require specific nutrient limitations is achieved by limiting the discharge of oxygen-demanding substances through BOD5 limitations. Compliance with the BOD5 limitations

as an indicator parameter will result in the control of nutrients from the discharge sufficient to attain and maintain the applicable water quality standard. Effluent monitoring of the indicator parameter as conducted by the permittee in accordance with the permit in addition to LDEQs ambient water quality monitoring program will allow for further evaluation by the Department to determine the effectiveness of the limitation. The reopener clause located in Other Conditions of the permit allows the Department to modify or revoke and reissue the permit if the limitations as set on the indicator parameter are shown to no longer attain and maintain applicable water quality standards.

A TMDL study is scheduled to be completed by March 31, 2011 by the state, or no later than March 31, 2012 by the EPA.

6. CHANGES FROM PREVIOUS PERMIT

Monthly Average Limitations have been added to Outfalls 001 and 004. Weekly Average Limitations for Outfalls 001 and 004 have been changed to Daily Maximum Limitations. Stormwater Outfalls 002 and 005 have been deleted. Monitoring frequency for Outfall 103 has been increased from monthly to twice per month.

7. COMPLIANCE HISTORY/COMMENTS

A. Compliance History

No records of recent compliance actions were found.

An inspection was conducted November 17, 2009.

B. DMR Review/Excursions - A DMR review was completed for October 2007 through September 2009. Various DMRs for each Outfall were not submitted. The following excursions were reported:

| DATE | PARAMETER | OUTFALL | REPORTED VALUE | | PERMIT LIMITS | |
|---|---|---|---|---|---|---|
| | | | MONTHLY AVERAGE | DAILY MAXIMUM | MONTHLY AVERAGE | DAILY MAXIMUM |
| 7/07-12/07 | BOD | 004 | 60.2 | 60.2 | --- | 45 |
| 3/08 | BOD | 103 | 317 | 317 | 22 | 49 |
| 3/08 | TSS | 103 | 144 | 144 | 36 | 117 |
| 3/08 | O&G | 103 | 23 | 23 | 17 | 71 |
| 4/08 | BOD | 103 | 59 | 59 | 22 | 49 |

| DATE | PARAMETER | OUTFALL | REPORTED VALUE | | PERMIT LIMITS | |
|---|---|---|---|---|---|---|
| | | | MONTHLY AVERAGE | DAILY MAXIMUM | MONTHLY AVERAGE | DAILY MAXIMUM |
| 4/08 | TSS | 103 | 43 | 43 | 36 | 117 |
| 6/08 | TSS | 103 | 51 | 51 | 36 | 117 |
| 7/08 | BOD | 103 | 40 | 40 | 22 | 49 |
| 11/08 | TSS | 103 | 408 | 408 | 36 | 117 |
| 3/09 | BOD | 103 | 45 | 45 | 22 | 49 |
| 7/07-9/07 | pH | 203 | 9.2 | 9.2 | 6 | 9 |

8. **EXISTING EFFLUENT LIMITS**

Outfalls 001 and 004

| | |
|---|---|
| BOD | -:45 mg/l |
| TSS | -:45 mg/l |
| Fecal Coliform | -:400 colonies/ml |
| pH | 6-9 |

Outfalls 002, 003, and 005

| | |
|---|---|
| TOC | -:50 mg/l |
| O&G | -:15 mg/l |
| pH | 6-9 |

Outfall 103

| | |
|---|---|
| BOD | 22:49 mg/l |
| TSS | 36:117 mg/l |
| O&G | 17:71 mg/l |
| pH | 6-9 |

Outfall 203

| | |
|---|---|
| BOD | -:26 mg/l |
| TSS | -:19 mg/l |
| O&G | -:29 mg/l |
| pH | 6-9 |

9. **ENDANGERED SPECIES**

The receiving waterbody, Subsegment 040304 of the Lake Pontchartrain Basin, has been identified by the U.S. Fish and Wildlife Service (FWS) as habitat for the Gulf Sturgeon, which is listed as threatened and/or endangered species. LDEQ has not submitted this draft permit to the FWS for review in accordance with a letter dated 11/17/08 from Rieck (FWS) to Nolan (LDEQ). As set forth in the Memorandum of Understanding between the LDEQ and the FWS, and based on information provided by the FWS, LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse effect upon the Gulf Sturgeon. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

**10. HISTORIC SITES**

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

**11. TENTATIVE DETERMINATION**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in the application.

**12. PUBLIC NOTICES**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

**13. STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENT**

A SWP3 is included in the permit because in accordance with LAC 33:IX.2511.A.1, storm water shall not be required to obtain an LPDES permit "... except... discharges associated with industrial activity." In accordance with LAC 33:IX.2511.B.14.a-k, facilities classified as SIC code 3087 are considered to have storm water discharges associated with industrial activity.

**For first time permit issuance,** the SWP3 shall be prepared, implemented, and maintained within six (6) months of the effective date of the final permit. **For renewal permit issuance,** the SWP3 shall be reviewed and updated, if necessary, within six (6) months of the effective date of the final permit. The plan should identify potential sources of storm water pollution and ensure the implementation of practices to prevent and reduce pollutants in storm water discharges associated with industrial activity at the facility. (see Narrative Requirements for the AI)

**Rationale for Adell Compounding, Inc.**

1. **Outfall 001** treated sanitary wastewater from the sanitary treatment plant on the west side of the site (estimated flow is 500 gpd)

   **Outfall 004** treated sanitary wastewater from the sanitary treatment plant on the south side of the site (estimated flow is 150 gpd)

| Pollutant | Limitation Mo. Avg:Daily Max (mg/l) | Reference |
|---|---|---|
| Flow | Report:Report | previous permit; LAG530000 |
| BOD | 30:45 | previous permit; LAG530000 |
| TSS | 30:45 | previous permit; LAG530000 |
| Fecal Coliform colonies/100 m/L | 200:400 | previous permit; LAG530000 |
| pH | 6.0 - 9.0 su | previous permit; LAG530000 |

**Treatment:** sanitary treatment plant

**Monitoring Frequency:** semiannually

**Limits Justification:** previous permit and the Class I Sanitary Discharge General Permit, LAG530000.

2. **Outfall 003** stormwater runoff from the areas north and east of the building and previously monitored effluent from Outfalls 103 and 203

| Pollutant | Limitation Mo. Avg:Daily Max (mg/l) | Reference |
|---|---|---|
| Flow | Report:Report | *; previous permit |
| TOC | ---:50 | *; previous permit |
| Oil and Grease | ---:15 | *; previous permit |
| pH | 6.0 - 9.0 su | *; previous permit |

**Treatment:** none

**Monitoring Frequency:** quarterly

**Limits Justification:** *limitations are based on LDEQ's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)and the previous permit.

3. **Outfall 103** process wastewater from the washdown of feeders, blenders, and floors, and previously monitored contact cooling water from Outfall 203 (estimated flow is 20,000 gpd)

| Pollutant | Limitation Mo. Avg:Daily Max (mg/l) | Reference |
|---|---|---|
| Flow | Report:Report | 40 CFR 463.22; previous permit |
| BOD | 22:49 | 40 CFR 463.22; previous permit |
| Oil and Grease | 17:71 | 40 CFR 463.22; previous permit |
| TSS | 36:117 | 40 CFR 463.22; previous permit |
| pH | 6.0 - 9.0 su | 40 CFR 463.22; previous permit |

**Treatment:** none

**Monitoring Frequency:** twice per month. Monitoring frequency is increased from the previous permit due to compliance issues.

**Limits Justification:** based on 40 CFR 463.22 Subpart B, Plastics Molding and Forming Point Source Category, Cleaning Water Subcategory, Best Practicable Control Technology (BPT), and the previous permit. Although this is an internal outfall to Outfall 003, a pH monitoring requirement is included because monitoring is required more frequently for Outfall 103 than it is for Outfall 003.

4. **Outfall 203** contact cooling water (estimated flow is 200 gallons per batch)

| Pollutant | Limitation Mo. Avg:Daily Max (mg/l) | Reference |
|---|---|---|
| Flow | Report:Report | 40 CFR 463.12; previous permit |
| BOD | ---:26 | 40 CFR 463.12; previous permit |
| Oil and Grease | ---:29 | 40 CFR 463.12; previous permit |
| TSS | ---:19 | 40 CFR 463.12; previous permit |
| pH | 6.0 - 9.0 su | 40 CFR 463.22; previous permit |

**Treatment:** none

**Monitoring Frequency:** once per batch

**Limits Justification:** based on 40 CFR 463.12 Subpart A, Plastics Molding and Forming Point Source Category, Contact Cooling and Heating Water Subcategory, Best Practicable Control Technology (BPT), and the previous permit. Although this is an internal outfall to Outfall 103, thence into 003; this outfall discharges infrequently, and pH monitoring at Outfall 103 may not be representative of this outfall. Therefore, pH monitoring is required for this outfall.

BPJ Best Professional Judgement
su Standard Units

NOTE
For outfalls containing concentration limits, the usage of concentration limits is based on BPJ for similar outfalls since the flow is variable and estimated.